

**Commonwealth of Kentucky**  
**Division for Air Quality**

**PERMIT APPLICATION SUMMARY FORM**

IBRAHIM AL-BURAI, REVIEWER

GENERAL INFORMATION:

Name:	Publishers Printing Company-Shepherdsville Facility
Address:	100 Frank E. Simon Avenue, Shepherdsville Kentucky 40165
Date application received:	February 26, 2008
SIC/Source description:	2752/Offset Lithographic Paper Printing Plant
AFS(10-digit) Plant ID:	21-029-00019
AI number:	469
Permit number:	V-06-041 R1
Activity Number:	APE20080001

APPLICATION TYPE/PERMIT ACTIVITY:

<input type="checkbox"/> Initial issuance	<input type="checkbox"/> General permit
<input type="checkbox"/> Permit modification	<input type="checkbox"/> Conditional major
__Administrative	<input checked="" type="checkbox"/> Title V
__X Minor	<input type="checkbox"/> Synthetic minor
__Significant	<input type="checkbox"/> Operating
<input checked="" type="checkbox"/> Permit renewal	<input checked="" type="checkbox"/> Construction/operating

COMPLIANCE SUMMARY:

<input type="checkbox"/> Source is out of compliance	<input type="checkbox"/> Compliance schedule included
<input type="checkbox"/> Compliance certification signed	

APPLICABLE REQUIREMENTS LIST:

<input type="checkbox"/> NSR	<input type="checkbox"/> NSPS	<input type="checkbox"/> SIP
<input type="checkbox"/> PSD	<input type="checkbox"/> NESHAPS	<input type="checkbox"/> Other
<input type="checkbox"/> Netted out of PSD/NSR	<input type="checkbox"/> Not major modification per 401 KAR 51:017, 1(2)(b) or 51:052,1(14)(b)	

MISCELLANEOUS:

- ☐ Acid rain source
- ☐ Source subject to 112(r)
- ☐ Source applied for federally enforceable emissions cap
- ☐ Source provided terms for alternative operating scenarios
- ☐ Source subject to a MACT standard
- ☐ Source requested case-by-case 112(g) or (j) determination
- ☐ Application proposes new control technology
- ☒ Certified by responsible official
- ☒ Diagrams or drawings included
- ☐ Confidential business information (CBI) submitted in application
- ☐ Pollution Prevention Measures
- ☒ Area is non-attainment (list pollutants): Ozone and PM2.5

Emissions Summary:

**Existing Source:**

<b>Pollutants</b>	<b>Actual (TPY)</b>	<b>Potential (TPY)</b>
PM/PM10	0.399	0.763
VOC	23.12	101
SO2	0.0244	0.0603
NO2	7.75	10.05
CO	2.03	6.83
Glycol Ether	8.68	19.55

Emissions Resulted from Revision 1:

<b>Pollutants</b>	<b>Actual (TPY)</b>	<b>Potential (TPY)</b>
PM10	0.0666	0.0666
PM	0.2663	0.2663
VOC	7.95	7.95
SO2	0.0210	0.0210
NO2	3.5040	3.5040
CO	2.9434	2.9434

Source wide Emissions after modification (Revision 1):

<b>Pollutants</b>	<b>Actual (TPY)</b>	<b>Potential (TPY)</b>
PM/PM10	0.3329	1.0959
VOC	7.95	108.95
SO2	0.0210	0.0813
NO2	3.5040	13.554
CO	2.9434	9.77
Glycol Ether		19.55

**MINOR REVISION - V-06-041 R1**

On February 26, 2008, the source applied to the Division for a Significant Revision to their Title V permit, V-06-041. The source has requested to do the following changes:

- Install a Hantscho Mark IV 6-Unit Web Offset Heatest Lithographic Printing Press (Press 405). The proposed Press 405 is similar in design and operation to the currently permitted Emission Point 01, Printing Press 437. The proposed Press 405 will use automatic blanket wash cleanup and a blanket wash solution with low VOC content.
- This project also includes the installation of a new CleanSwitch Regenerative Thermal Oxidizer (RTO). Press 405 will be interlocked with the new thermal oxidizer with a minimum 90% VOC designed destruction efficiency. As a result of this, Press 405 can physically not operate without the control equipment on-line. The VOC potential to emit (PTE) is, therefore, 7.95 tons/year. Concurrent with the addition of Press 405 and installation of the new RTO (CS-200), three existing presses (Presses 448, 450, and 470) will also be routed to and interlocked with the new RTO (CS-200). The existing CleanSwitch RTO (CS-250) will continue to serve the other existing seven presses. These three existing presses are currently routed to

the existing RTO (CS-250); therefore, there is no decrease in potential emissions expected related to additional control.

- Remove EP-04 (Press 444) from the plant.

#### **SOURCE PROCESS DESCRIPTION:**

Publishers Printing Company is an offset lithographic paper printing plant which prints magazines. Printing takes place on ten offset lithographic presses each with a natural gas fired dryer. Insignificant activities consist of a waste paper cyclone and dust collector system, small hot melt gluers, ink jet printing and head cleaning, two magazine glueing machines, three cooling towers, three chillers, cold solvent cleaner, non process space and water heaters, propane tank (18,000 gallons), 39 Co Ray Vac Radiant Comfort heaters (40, 000 Btu/hr each, natural gas/propane), eleven (11) space heaters (Total 1.66 mmBtu/hr, three @ 80,000 Btu/hr, two 115,000 Btu/hr

two @ 195, 000 Btu/hr and four @ 200,000 Btu/hr, natural gas/propane).

#### **EMISSION AND OPERATING CAPS DESCRIPTION:**

1. VOC emissions from Press Emission Point 3 (Press 442) shall not equal or exceed 40 tons/yr based on a 12 month rolling total to preclude applicability of 401 KAR 51:052, Review of new sources in or impacting upon non attainment areas;
2. Fountain solution as applied containing less than 3% by weight alcohol substitutes and containing no alcohol and no other VOC's;
3. Blanket wash with a vapor pressure of less than 10 mmHg at 20 degrees C;
4. Negative pressure shall be maintained at each dryer's exhaust inlet when the corresponding press is in operation;
5. The permittee shall retest the RTO at least once during the life of this new permit;
6. Each press and the control device shall be interlocked at all times during press operation;
7. Pursuant to 401 KAR 50:012, Section 1(2), the permittee shall operate the Regenerative Thermal Oxidizer (RTO) at all times printing is being performed;
8. RTO shall have 90% VOC destruction efficiency, controlling each press' dryer exhaust.